Admirals Lake Management Guide

As Approved by the ACBC Board, October 19, 2021

This Admirals Lake Management Guide is intended to guide Admirals Cove Beach Club (ACBC) members and the Board of Directors with decision-making compatible with the club's bylaws and Island County code. Two sections of the Bylaws apply to the Lake Committee.

(1) Per Article II, Section 1 of the Bylaws ACBC shall provide and operate *"athletic, social and recreational facilities for the benefit of its members*," and shall do so in a manner consistent with "*Island County, Washington, and Federal law*."

(2) Per Article XII, Section 3, the Lake Committee is to pursue a "*healthy sustainable ecology for Admirals Lake*." Specifically, the committee shall recommend on ecological enhancements; soil erosion mitigation; and outfall pipe, tide gate, and lake level matters, as needed.

This Guide addresses both those sections in order of their occurrence in the Bylaws and prefaces that examination with this overall vision statement.

> **Vision Statement:** The vision for the community of Admirals Cove and Admiral's Lake is to restore the health of the lake to a condition that supports safe water contact, fishing, boating, birds, and wildlife throughout the year. Through education and partnerships, we strive to maintain an environmentally friendly relationship with this water and its kindred Crockett Lake System and thereby balance and protect the recreational, ecological, and safety interests, as well as the property investments of our community.

While intended to provide stable long-range direction at the policy level, this Guide may be revised if new information, conditions, or circumstances warrant.

1. Bylaw: Athletic, Social & Recreational Use (Art. II, Sec. 1)

As a vital part of the Crockett Lake and marshland ecosystem, widely recognized for its wildlife significance, Island County has classified Admirals Lake as a Class-A wetland and included it in its Shoreline Master Program.[1] The ecosystem is especially critical for waterfowl. Admirals Lake is the major freshwater body in that ecosystem and thereby provides essential habitat diversity for dependent waterfowl and marsh-based mammals. Recreational uses should capitalize on opportunities to view and enjoy the dependent wildlife without causing them undue stress and disruption. Referred to as "passive recreation" it ensures a reasonable balance between our ACBC uses and our wildlife community's needs. And it ensures uses compatible with the lake's overall ecological values as codified by Washington State and Island County.

The Department of Ecology has classified the lake as a Coastal Lagoon, Estuarine Wetland, which stipulates that only non-motorized boats are permitted within wetlands per ICC 17.02A.090, and

1 17.05A.080 - Shoreline use classification. | Code of Ordinances | Island County, WA | Municode Library

adopted by reference into ICC 17.05A.090.C.14[2]. While the DOE may soon alter the lake from its current "Natural" designation to a "Wetland" designation, either way that will have no impact on the passive recreation stipulation. That is, only non-motorized boat uses are permitted within wetlands, and the lake is regulated as a wetland under either classification. The code provides for recreation that is consistent with well-accepted past ACBC rules and uses of the lake affording a wide range of water contact and shore-based activities. It is also consistent with the committee's survey findings, which identified that the strongest recreational interests were based in enjoyment of the lake's wildlife and natural aesthetics[3]. Hence, any newly proposed activities must be carefully evaluated to ensure they do not harass wildlife or contravene State and County code and the established and well-accepted ACBC recreational uses.

Examples that would comport:

a) The lake could be stocked to provide fishing opportunities for residents. This should be native species able to survive and reproduce in the lake. It would also expand and diversify the prey base for wildlife and bird predators.
b) Enhance visual, auditory, and photographic opportunities for residents to passively interact with and enjoy wildlife from land and from low-impact boats, such wildlife including waterfowl, harriers, eagles, beavers, otters, raccoons, coyotes, weasels, etc. For example, the ACBC property at the middle of lower Byrd Road might be a good spot for an observational blind.
c) A dock might be added near the pool to assist boat access or to sit on a bench and watch the ducks.
d) Promote community involvement projects to enhance the lake, such as building one or more floating islands for nutrient tie-up to improve water quality and increase habitat diversity and wildlife habitat.

2. Bylaw: Healty, Sustainable Ecology (Art. XII, Sec. 3)

This bylaw calls up multiple stewardship challenges involving habitat protection for the lake's furred, finned, and feathered wildlife, as well as the need for ACBC and community involvement. Habitat stewardship includes the lake's water quality, its aquatic and surrounding riparian vegetation, and the lakes's water elevation (i.e., input/output control).

Some examples:

a) Monitor and recommend tidegate and outfall pipe needs for maintenance and investigate alternatives for possible flood-water dispersal.
b) To extend wildlife appreciation and education outreach opportunities to residents and interested Whidbey Islanders, the Lake Committee could facilitate Shelter talks, field hikes, and community-involvement projects such as noxious weed removal, shoreline enhancements, constructing and maintaining a floating island(s).

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2 A sidebar of interest to many, homes on the south side of Keystone Ave that front the Puget Sound are to be classified as a *Historic Beach Community*. Most all homes on the north side of Keystone Ave that front Admirals Lake are not considered *Historic Beach Community* because on average the homes are setback further than 30 ft from the lake'sordinary high water mark. They are instead to be designated as *Shoreline Residential*. The ACBC property is classified as Rural Conservancy, which is good for ACBC's options.

3 http://acbc-whidbey.org/uploads/3/4/7/9/34792651/summary_of_the_lake_committees_priorities_2020[4212].pdf

c) ACBC could promote partnership with Whidbey Camano Land Trust (WCLT), the major steward of the Crockett ecosystem, to establish ways to mutually secure and enhance the lake as a valued part of the Crockett Lake and marsh ecosystem.
d) An informational kiosk to include the Vision Statement and wildlife pictures and life history information could be constructed. Special wildlife enhancement projects, like the otter ramp in the tidegate vault could be promoted.

Most problematic is the lake's water quality, including assessment of the cost-benefits and a truly viable and affordable treatment option. Blue-green algal blooms (also known as cyanobacteria) are unsightly, aesthetically unpleasant, often smelly, and sometimes can produce toxins, which can provoke illness that can be lethal, although rarely. Related water chemistry variables that affect the blooms have been and will continue to be periodically analyzed, and algal blooms and new treatment options will be periodically monitored to guide algae control and treatment decision-making.

Current treatment options:

a) Nanobubbles—microscopic bubbles that keep the bottom sediments aerobic and hence thwart the release of phosphates that promote algal growth.
b) Alum—treatment of the water column that ties up phosphates as a floculant that sinks to the bottom where it further discourages phosphate releases from bottom sediments.
c) Biodegradation (biotransformation)—breaks down organic contaminants by microbial organisms into smaller compounds. The microbial organisms transform the contaminants through metabolic or enzymatic processes. NTMax is one such product.
d) Algal filtration (EutroSORB).

3. Related Aspirations to Satisfy the Bylaws

To ensure retention and access to important lake records (ecological and water chemistry data, relevant scientific studies, legal matters, tidegate and outflow records) the Lake Committee and Board would benefit from having an archive of lake records.

Examples of archived data :

a) Baseline ecological data and reports on water chemistry and contaminants, bottom organisms, plankton, vegetation and wildlife use should be archived for access needed to facilitate informed decision-making.
b) Actions implemented should be recorded to document progress towards the goals.
c) Archive categories could include legal, historical, ecological baseline, algal treatment information, etc.
d) Water-level regulation actions and data related to tidegate and outfall pipe, etc.

4. Related Planning & Tracking to Satisfy the Bylaws

The Lake Committee will seek input from the community and the Board of Directors to prioritize actions to be undertaken, such as water quality monitoring, fish stocking, constructing floating islands, etc. Prioritization will depend on community interest, feasibility, and cost, as well as what goals and objectives are satisfied by that action (outcome-based analysis by goal/objective). The ACBC community will be periodically surveyed to better understand their interests.

Example of Action-Based Analysis

Action Item Example	Goal # that the Action Item Satisfies				
	1	2	3	4	
Prioritization of actions and related decision-making			X		
Stock the lake to provide fishing opportunities for residents	X				
Develop one or more floating islands		X	X		
Treat and manage the lake to reduce phosphorous		X			
Informational kiosk		X			
Waterfowl/wildlife observational blind	X				
Collect baseline ecological data		X	X	X	
Determine opportunity for outflow into adjacent marshlands		X			
Development of a lake records archive	X	X	X	X	